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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,505	01/23/2004	Hajime Mizutani	110797.01	5227
25944	7590	10/28/2005	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			CADUGAN, ERICA E	
			ART UNIT	PAPER NUMBER
			3722	

DATE MAILED: 10/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No. 10/762,505	Applicant(s) MIZUTANI ET AL.	
	Examiner Erica E. Cadugan	Art Unit 3722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 8/12/05, 8/24/05.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,3,6-11 and 21-28 is/are pending in the application.  
     4a) Of the above claim(s) 7-11 and 25-27 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2 is/are allowed.
- 6) ☒ Claim(s) 3,6 and 22-24 is/are rejected.
- 7) ☒ Claim(s) 21 and 28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☒ Certified copies of the priority documents have been received in Application No. 09/972,164.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Election/Restrictions***

2. It is noted that Applicant, in the reply filed on February 4, 2005, elected the invention of Group I, and the species of Figure 13 therewith. The restriction requirement was made final in the office action mailed May 12, 2005.

It is also noted that new claims 25-27 do not read on the elected invention.

Instead, it appears that claim 25 may read on the embodiment of Figure 21. Additionally, regarding claims 26-27, note that the embodiment of Figure 13 does not utilize a "rotary cutting tool" as claimed.

Thus, new claims 25-27 are withdrawn from consideration as being drawn to a non-elected species/invention (in addition to previously presented claims 7-11, which are still withdrawn from consideration).

#### ***Terminal Disclaimer***

3. The terminal disclaimer filed on August 12, 2005 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Pat. No. 6,758,640 has been reviewed and is accepted. The terminal disclaimer has been recorded.

#### ***Claim Rejections - 35 USC § 102***

4. Claims 3, 6, 22, and 23-24 are rejected under 35 U.S.C. 102(b) as being anticipated by JP-8-141804 ('804).

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'804 teaches a cutting blade 4 and/or 12 having a conductive layer 13 (see abstract and Figures 1-5). Additionally, '804 teaches an "object" 3 in the form of a workpiece. Note that blade 4/12 is held by a blade holding member 2 (Figure 1). Note also that '804 teaches a power source 21 (see Figure 1, for example). Note also that the layer 13 is located in the space between the blade 4/12 and the holder 2, and is also located between the blade 4/12 and the workpiece 3 (Figures 1-5, for example).

Note that as viewed in Figure 6, for example, resistance [from the circuit shown in Figure 1, which includes at least the **holder 2 (re new claim 23)**, the blade 4/12, the workpiece 3 -- see Figure 1 and paragraph 0017, for example --, and the power source 21] is shown on the vertical left-hand axis, and cutting time is shown on the horizontal axis (see Figure 6, also paragraph 0028, for example). Note that such a circuit would inherently provide information about when the cutting tool was not in contact with the workpiece, as at such time, the resistance of the circuit would be infinite. Such circuit also detects contact of the tool with the workpiece, as viewed in Figure 6 (i.e., when the resistance is not infinite).

Re claim 6, see Figures 2-5, for example.

***Allowable Subject Matter***

5. Claims 21 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claim 2 is allowed.

7. The following is an examiner's statement of reasons for allowance:

Regarding independent claim 2, JP-63-283843 ('843) is considered the closest prior art of record to the present invention as set forth in independent claim 2. '843 was discussed in detail in the office action mailed May 12, 2005.

Suffice it to say, upon further consideration and review by the Examiner, the rejection of claim 2 based on '843 is withdrawn because it does not appear that the override controller 4 taught by '843 can be considered to be the claimed "checking device that checks if a contact detecting device for detecting contact of said cutting blade and said object is in a normal condition in which said contact detecting device detects said contact when said cutting blade and said object are brought into contact with each other" as set forth in claim 2. Additionally, there is no combinable teaching in the prior art of record that would reasonably motivate one having ordinary skill in the art to so modify the teachings of '843, and thus, '843 does not render obvious the present invention as set forth in independent claim 2.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### ***Response to Arguments***

8. While Applicant's logic is unclear, Examiner agrees with Applicant's assertion that the controller 4 of the JP-63-382843 ('843) "is not a checking device that checks if a contact detecting device is in a normal condition...". Accordingly, the rejection of claim 2 based on '843 has been withdrawn.

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9. Applicant's arguments with respect to the rejection of claims 3 and 6 under 35 USC 102(b) over JP 8-141804 ('804), which arguments were filed August 12, 2005 and August 24, 2005, have been fully considered but they are not persuasive.

Applicant has asserted (in the 8/12 response) that "an insulating layer 16 is interposed between the workpiece 3 and a second conductive layer 15, which covers the body 12 of the cutting tool 4" and that "with the device disclosed in JP '804 it is not possible to detect the of (sic) the cutting tool 4 with the workpiece 3 until the second conductive layer 15 does not even contact the workpiece 3 until the insulating layer 16 is worn and the second conductive layer 15 is exposed".

However, this is not persuasive. Claim 3 sets forth a "step of detecting contact and separation of said cutting blade with and from said object, based on a transition from an open state of said on-off circuit to a closed state of said on-off circuit, wherein said on-off circuit is in said open state when said cutting blade is separated from said object, and said on-off circuit is in said closed state when said cutting blade is in contact with said object".

Firstly, it appears that Applicant is asserting that the cutting blade is not in contact with the workpiece until all of the layers are worn away. However, it is noted that in the present invention as well as in '804, the cutting blade is in indirect contact with the workpiece since the blade contacts the coating (coating 13 includes all of the layers), and the coating contacts the workpiece.

Note also that the graph in Figure 6 shows resistance as a function of cutting time as described in the rejection based on '804. Note that the way the circuit is set up that provides the resistance data, the circuit inherently provides information about whether the cutting blade and

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work are in contact since, if there is no contact, the resistance approaches infinite (a state not shown in Figure 6, i.e., the resistance would be significantly higher than that shown at the left side of the graph), and if there is contact, there is resistance (as shown in Figure 6 in its entirety).

Additionally, in the remarks of the response filed 8/24/05, Applicant's arguments with respect to the '804 reference fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. The argument merely restates the claim language and states that JP '804 doesn't teach the claim language. However, the rejection set forth in the office action of May 2005 provides explanation as to why such claim language is taught, and Applicant has not provided any reasoning in the arguments of 8/24/05 as to why the explanation provided in the May 2005 office action would be considered to be faulty in some way.

10. Also, it is noted that in the response of 8/12/05, Applicant stated that "upon the allowance of generic claim 2, Applicants respectively request rejoinder and allowance of claims 7-11.

However, claims 7-11 do not depend from claim 2, and thus do not include all limitations of the allowed claim 2. The mere presence of an allowed generic claim does not require the rejoinder of claims to non-elected species.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erica E. Cadugan whose telephone number is (571) 272-4474. The examiner can normally be reached on M-F, 6:30 a.m. to 4:00 p.m., alternate Fridays off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer D. Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR



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system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Erica E Cadogan  
Primary Examiner  
Art Unit 3722

eec  
October 26, 2005